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# NORTHWEST ARCHITECT

MARCH-APRIL 1952

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VOLUME XVI

NUMBER TWO



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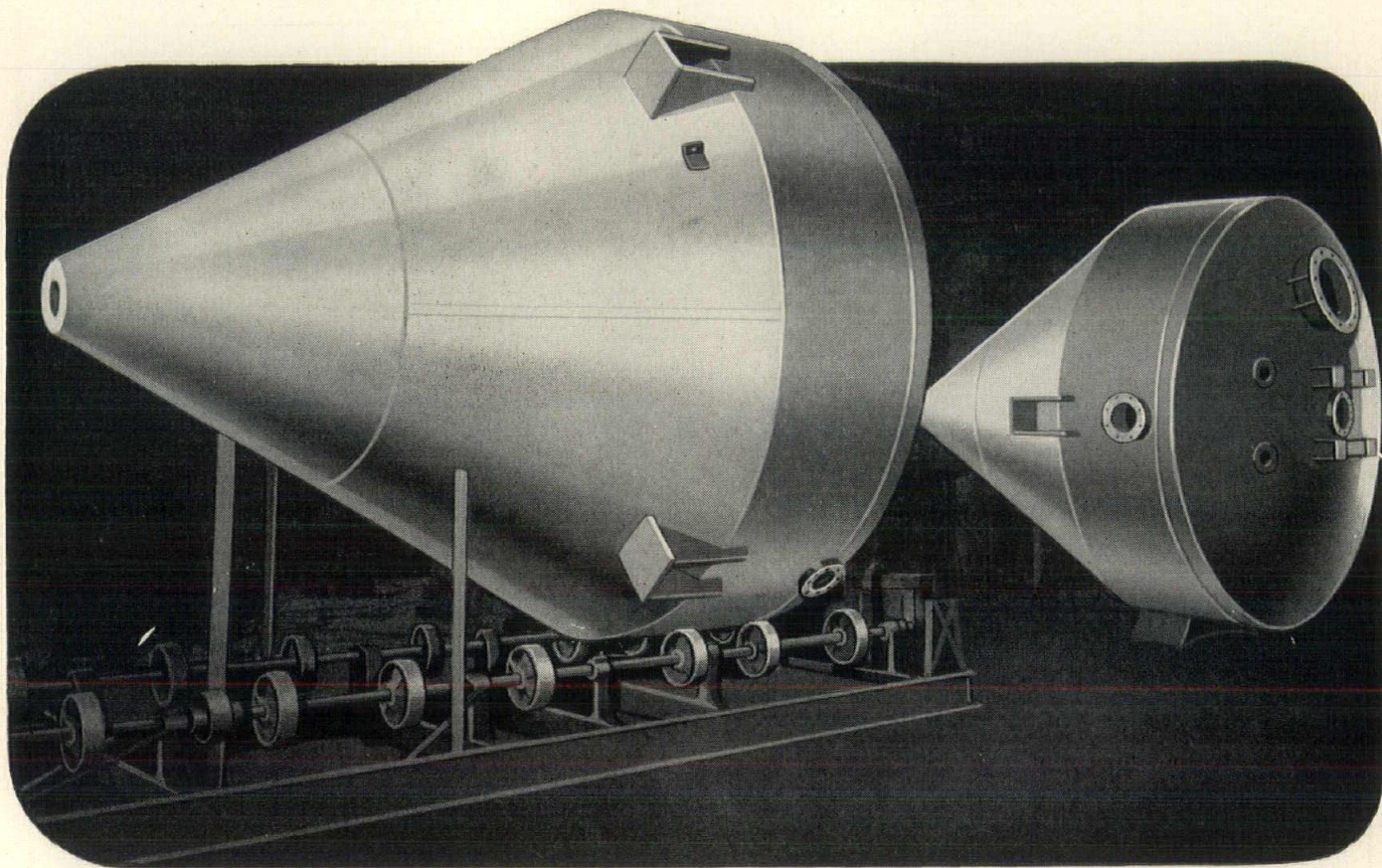
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# NORTHWEST ARCHITECT

~~~~~ 1952!

~~~~~ 1902?

~~~~~ 1852...



2052 ~~~~~

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**A**RCHITECTURAL students are fortunate in being able to work in free inquiry under teaching staffs who encourage practice runs with any mental build-up that can be propelled by the student. But this good freedom cannot long be enjoyed unless it is constantly sustained against its enemies; hard to do because enemies don't "look it" and won't admit that they are enemies.

**T**HE PRESENT FAVORABLE CLIMATE could quickly reproduce the old storms. We therefore propose to publish three historical vignettes:—

"1902 and the Gilded Age".

"1852 and the First Battle of Bozart".

"1952 and Swedish Empiricism".

**O**UR OBJECT IS TO WARN against another imposed architecture by the few for the benefit of the privileged. We believe in an architecture out of the basic American Continuity serving our best selves; a Republic of Building expressing the truly aristo-cratism demos...W.G.P.

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Official Publication  
Minnesota Society of Architects  
E. RICHARD CONE, ST. PAUL, President

VOLUME XVI  
NUMBER 2 1952

Northwest Architect and its publishers disclaim any and all liability for statements made by authors in contributed articles.

Publication Office: 2642 University Ave., St. Paul 4, Minnesota

ARCHITECT



# 1902 and the Gilded Age

## Teaching Architecture in Universities

A Story of Cornell

by William Gray Purcell

THEN --- NOW --- WHEN

**T**HERE IS ENTERTAINMENT in the following episode, but the reason for recounting these casual events, of fifty years ago, is that the circumstances should give you some idea of the international domain which was architecture in that day, and of the hierarchy from Paris which ruled it. It can happen again, and probably will — and before 2052 A.D.

The volume and extent of research data available today, and its capable analysis by architectural students, represents an almost unbelievable advance, as compared with the feeble importances of 1902. Turn back only a few years to the architectural magazines of even 1942, you will be surprised to find that a considerable part of this progress has occurred in the last decade.

**B**UT let's see what went on in any College of Architecture fifty years ago, Cornell University will serve, it is characteristic of them all.

The ambitious Phoebe A. Hearst plan for the new University of California campus had recently been won by M. Bénard of Paris. He had refused to have anything to do with carrying out the project (as beneath his dignity) and the fourth prize winner John Galen Howard had accepted the commission, closed his New York office, and moved to Berkeley, California.

These world events in Architecture and Education stirred up new enterprises at Cornell no less than at Columbia, Chicago, and on many another campus. In September, 1902, this enthusiasm resulted in a grand campus plan for Cornell by Carrère and Hastings. Their vast project soon proved as complete a fantasy as did that of M. Bénard for California. Both were abandoned, neither provided a single productive idea; both were impossible of realization or of practical operation even if they could have been built.

Ex-President of Cornell, Andrew D. White, was more practical. He was at that time U. S. Ambassador to Germany. While waiting for Carrère and Hastings to complete their plan, he sensed immediate need for a campus commons and dining hall. He therefore offered a \$100 prize for the best design. His idea seemed to be moving toward the type of University Center which finally materialized as our Willard Straight Hall. Straight himself, soon to become a Morgan partner and

marry a Whitney heiress, had just graduated in architecture. That was in 1901.

**A**MBASSADOR WHITE'S COMPETITION was limited to the Juniors and Seniors in Architecture. Johnny Van Pelt and Alexander Buell Trowbridge, the Parisian team who then ran the College of Architecture with no little *recherché* atmosphere, drew up a proper *Prix de Rome* program.

**M**OST ITHACANS who were not architects, felt that the five original Cornell halls built in 1868 held history and sentiment that not only should be respected but should remain unviolated. As a Junior in this competition I agreed with this view and therefore decided that instead of submitting a French Renaissance project, or shooting off in historical directions, I would align my general dispositions with those first buildings; would try to understand the basic character of the founders and what they were thinking about; use the same old building materials, still easily available. In order to show my respect for these rather artless buildings I searched them for basic shapes — windows, doors, scale of the masonry, wall marginings, copings. I used just enough such old American building habits to tie the project back into campus eye-values, without interfering with a well rounded answer to a campus commons on that west sloping lot, as such needs were envisioned in 1902. It was plainly an era in which life demanded considerably less "service" than it did a quarter of a century later, when the Willard Straight commons was planned.

The architectural faculty was nonplussed by such a simple-minded idea — all but practical Clarence Martin, professor of Construction, who was raised a carpenter, had good rugged carpenter's hands, and was certainly a tree climbing fish in that Franco-American atmosphere. Design professor Nash, a Beaux Arts graduate fresh from Paris, tried to persuade me into other ways of thinking. Every time he came around he had a new idea to add "architecture" to my "car-barn." He insisted that I put two large columns on either side of my doorway, with some stone vases up top and a lot of fancy stuff here and there, copied out of Caesar Daly (he incorrectly called it "Sayzar Dahley" — but that is another story).



**I** HAD BEEN pretty well primed for this four year battle of mine against bozart. Since I was twelve years old, my parents had lived on Forest Avenue in Oak Park, with Frank Lloyd Wright, and all the little Wrights living in the other corner of the same block. Since completion of the Chicago Auditorium, I had been a deep admirer of Louis Sullivan. I was in touch with everything that he had done and there was considerable of it available around Chicago.

**I** WOULDN'T COMPLY with Nash's proposals. This was no mere term problem; it was also a general contest. I kept asking him "why"; "what for"; "what significance?" in the forms he called for. You can imagine I got the usual answers of that day. No answer at all. By my Junior year I had got myself sort of professionally, rather than personally, disliked, because I kept asking questions for which nobody had any answers—nobody, that is, but Clarence Martin and to a lesser extent Professor of History Phelps. They felt I "might have a basis for my peculiar views, even if dimly seen."

And so all the Seniors, and Juniors, under the pressure of the architectural Faculty, produced for this competition, without exception, various kinds of important buildings; academic "pro'-zhays" like "Palaces to receive somebody or other," planned for marble and over-furnished with pilasters, columns, cornices and balustrades, swags and cartouches, carved and panelled interspaces, all the bozart pastry then in vogue. Some of the drawings were pretty slick—tricky presentations in the way of drafting. You can understand that the general atmosphere was set against me, and no doubt I may have been a little nervous.

But at last I became satisfied with my design although nobody else was. Nash finally got so exasperated that he would not give me any criticism at all. He simply gave me a laugh as he went by or made some unpleasant crack. Toward the last I started in to color up my drawings. I just didn't do a very good job. The more I fussed the worse they got, until finally they were impossible. The deadline was one o'clock on this certain Saturday in June. Here it was about nine-thirty in the morning. I took a look at my work of the previous day. The drawings were terrible. At that moment the Seniors arrived in the Junior drawing room and escorted me with a body guard into the Senior drawing room. I was put on a mock throne, presented with a medal hung round my neck, and crowned with paper laurels.

**A**LL this didn't make me feel any too good either; everybody was horsing around the third floor of Lincoln Hall. I went back to our Junior drafting room pretty well discouraged. No use hanging in that mess.

**S**O I PUT my four or five drawing boards underneath the tap; tried to wash off the color. It was soon apparent that the paper had been painted and repainted until the pigments were ground-in and wouldn't come out. To dry them quickly I put all my drawing boards out on the window sills. Along came a flying cow disguised as a robin and put one right down in the middle

of the most important facade. The acid etched the splash into the paper. That was just too much. Juniors and Seniors took the roof off the building in another celebration.

The drawings dried one by one. I took some simple sepia color and in the next two hours managed to wash in the shadows. Well, you know when I got through, things really looked pretty good. A kind of atmospheric left-over from all the parti-colored paint stain gave them a sort of life and patina.

I had pulled myself out of the year's credits hole, left Ithaca and went back to Oak Park. I hadn't been home two days when I got a telegram from one of the boys reading: "You won, Bill, honest Injun, no fooling." I was perfectly amazed; I thought about all the fancy drawings done by those prominent Seniors who seemed mighty artists to me.

**D**EAN TROWBRIDGE WROTE ME A LETTER that might have been called congratulations. The effort to say something nice and to actually transmit the first prize to me was evidently a little too much for him. Little by little the following winter I found out what happened.

**W**HILE THE JURY was at work judging the drawings and having a lovely time according to their Parisian routine, a shade of Andrew D. White drifted across the Atlantic and stood beside them. With dismay they began to see that of all the drawings made, there was only one contestant who had made any real attempt to solve the problem. For the first time in their architectural lives they turned to face a practical client with an international prestige which their specialty "importances" could not high-hat. Only one design called for a modest building, it was related to the other buildings on the campus, it showed a decent respect for the sentiment of the old buildings, it could be built for a reasonable sum of money, and it would supply the students with an acceptable place where they could gather in friendly comfort. It anticipated Willard Straight facilities and did not encourage use of the campus as an experimental laboratory for architectural cults—a procedure which has not ceased to the present moment. All the other eighteen designs were wholly unrealistic. Any one of them would have cost a quarter million dollars to build, and when built would have supplied no need.

So the Faculty jury could laugh at me, but they couldn't face the clean thinking of a living Ambassador, Andrew D. White. They were in fact driven to give the award to me, and in due course the drawings were transmitted to Berlin. Andrew D. White wrote me a nice letter. The drawings may still be in his private archives.

**T**HIS IS A VERY GOOD EXAMPLE of the peculiar situation into which the so called architectural "tradition" of teaching had fallen. It wasn't a tradition, it was a "succession" and had got itself so absolutely snarled up in cult esthetics that when it faced the real world of building it was completely unable to move.

(Continued on Page 18)



# Committee Calls for Minnesota Convention Exhibits

**Specs:  
June 6 and 7  
St. Paul Hotel  
St. Paul**



Project exhibits to be shown in competition at the June 6 and 7 convention of the Minnesota Society of Architects have been called for by the committee in charge, according to Richard F. Hammel, exhibit chairman. The exhibit will be in the Hotel St. Paul, St. Paul, where the convention will convene.

"Each architect is encouraged to exhibit his favorite subject," Mr. Hammel said, stressing the fact that in showing his favorite subject the architect will be showing his work at its best. Projects to be shown are restricted to members of A.I.A., both corporate and associate.

A tentative jury has been selected, including Leon Arnal of Minneapolis, Spero Daltas of Detroit and Norman Fletcher of Minneapolis. Each architect may submit as many projects as he wishes, providing each fulfills the requirements for exhibiting listed in information available from the society's headquarters.

Top honor to be given will be the "First Honor Award for Distinguished Accomplishment in Architecture." As many exhibits as the committee wishes will be given Awards of Merit. The competition is open to buildings of all classifications.

This competition has always been one of the high points of the annual meetings and many professional discussions center around them. The program this year promises many other features of outstanding values for members and visitors at the convention. Talks by leaders, both local and from other states, will bring into focus some of the major problems of the times as they directly affect architects. Panel discussions will iron out intricacies of architectural, engineering, management, planning, community and related aspects of today's practice. Members of the audience can thus obtain open discussion of some of their most pressing questions and avail themselves of the expert opinion of others in the field.

The convention committee stressed the importance of early planning to attend the convention so hotel and other reservations can be obtained.

Minnesota officers who will officiate at the 1952 meetings are (left to right) W. A. Close, Minneapolis, secretary; Donald S. Haarstick, St. Paul, vice president; E. Richard Cone, St. Paul, president, and C. H. Smith, Duluth, treasurer.

This year the Saint Paul Chapter of the American Institute of Architects will be hosts to the annual convention of the Minnesota Society of Architects.

What is felt will be an outstanding program of seminars, field trips, luncheons, bull sessions, etc., is being formulated, details of which will be announced at a later date.

## NDAC STUDENTS WIN DESIGN PRIZES

Enrico Corsini of Bound Brook, N. J., advanced North Dakota Agricultural College architectural student, has won first prize and a cash award of \$200 in an architectural competition at NDAC sponsored by the Indiana Limestone Institute.

Second place award of \$150 went to Jay McLean of Fargo. Marvin Rosvold of Fargo won the third place prize of \$100. Honorable mention awards of \$25 each went to Jose Iranzo of Venezuela, S. A., and Harold Speers of Moorhead, Minn.

The competition problem consisted of designing a high school building using Indiana limestone. Senior and fifth year architectural students submitted designs for a proposed building that would accommodate 1,200 students.

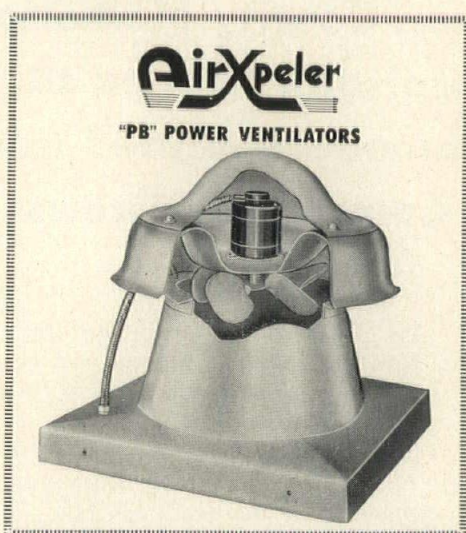
NDAC was one of 21 colleges in the nation invited to enter the competition and the first to receive the competition awards which were presented by Lee E. Donaldson of the sponsoring institute.

The jury of architects picking the award winners were Paul Gross of Grand Forks, Harold Bechtel of Fargo, and Knute A. Henning, O. Reuben Johnson, and George Polk, all of NDAC.



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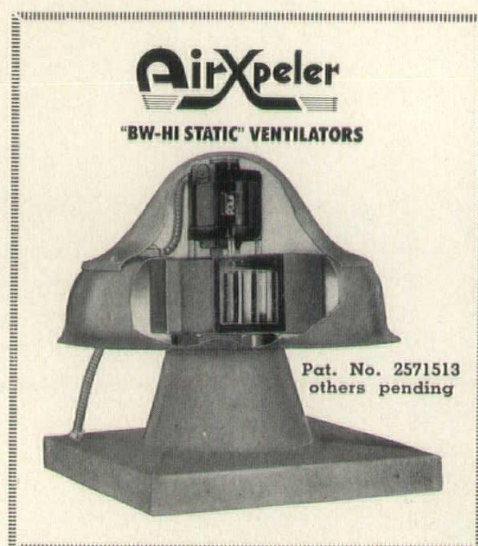
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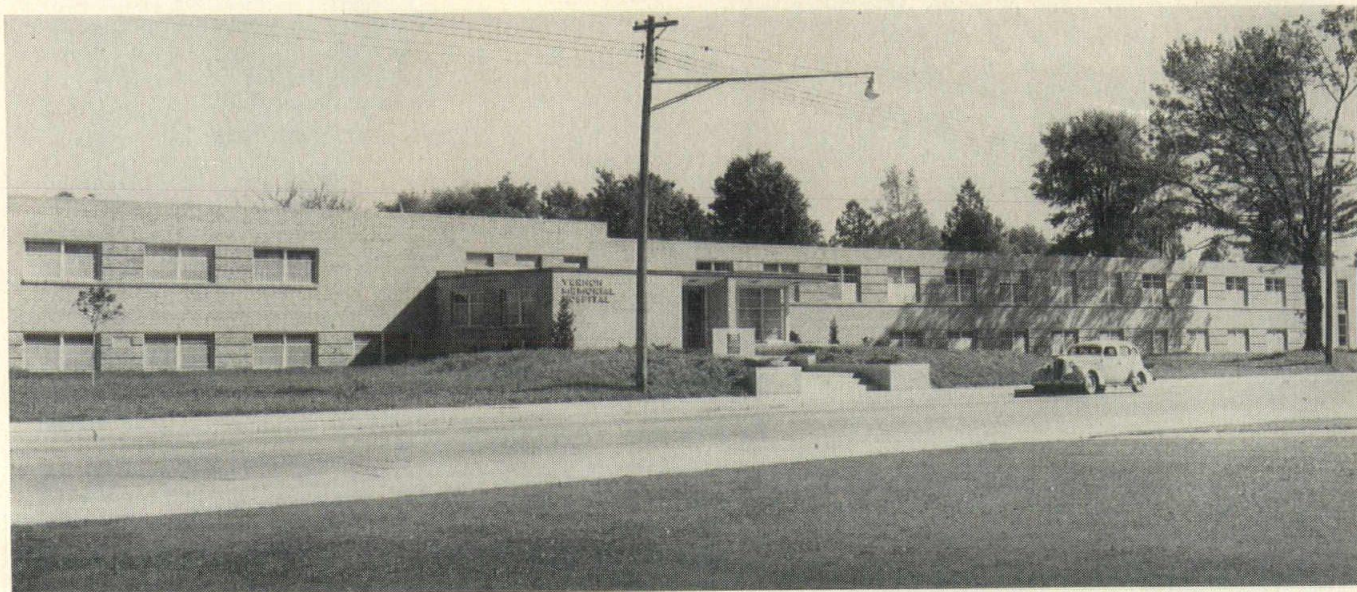
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ARCHITECT



# Built for a Future



One of many outstanding small hospitals now being built is the Vernon County Memorial Hospital in Viroqua, Wis., designed by Durrant & Bergquist, architects of Dubuque, Iowa.

This 31-bed one-story-and-basement structure incorporates many features usually found only in large hospitals. Just recently opened for patients, the \$374,000 hospital was built to fulfill an urgent need for such facilities in Viroqua, whose population is 4,000, and surrounding communities.

The hospital is designed with an eye to the future. It is so planned that construction of a contemplated 17-bed addition can be made without interrupting service. Most of the present equipment is adequate for a 75-bed hospital. Although it now has 31, the maximum capacity of the building is 45 beds.

Patients' rooms have built-in cabinets, wardrobes, bed lamps and sinks. Two have showers. The surgical-obstetrics wing has a fully automatic temperature-humidity control system, with separate automatic controls in both the operating and delivery rooms. These two rooms have recessed lights that eliminate all shadows. There is piped oxygen throughout the hospital.

Basic construction of the long, modern building is brick and clay tile with steel framework. It is highly fire-safe. Low fire insurance rates were secured through vermiculite plaster fireproofing on walls and ceilings and a vermiculite concrete roof deck.

The hospital is composed of one long wing, with a small entrance and waiting room section jutting out at the center. The north end is wider and houses the operating and delivery rooms, an X-ray room, laboratory, first aid room and doctors' and nurses' lounges.

The superintendent's office, reception desk and waiting room are in a section off the main corridor in the center, which separates the surgical-obstetrics area from

## Vernon County Memorial Hospital Designed to Accommodate Added Beds as Community Grows

the patients' area. In the latter portion there is a nursery, equipped with individual bassinets and an incubator. This room has an automatic humidity-temperature control and an emergency electric heating panel in the ceiling. There is also a small isolation nursery for babies brought back to the hospital for treatment. The ambulance entrance is in the rear, near the first aid and operating rooms.

The basement level of the hospital is actually only half below grade so that ample natural light is available. It includes a modern, high-speed laundry that is capable of taking care of a 75-bed hospital. With 31 patients the management expects to be able to complete the daily laundering by noon. In the former county hospital in Viroqua the laundry couldn't be completed in one full day and all ironing was done by hand. The new plant includes a 95-pound washer, 20-inch extractor, a tumbler, two presses and a 100-inch two-roll mangle. Laundry chutes feed directly to this room and a dumb waiter hurries clean laundry back upstairs.

A disaster room that can handle an additional 12-18 beds is located in the basement. It is equipped with piped oxygen and has a scrub sink and ample first aid equipment.

All service facilities are also in the basement, which has glazed tile walls throughout. These include an

*(Continued on Page 40)*

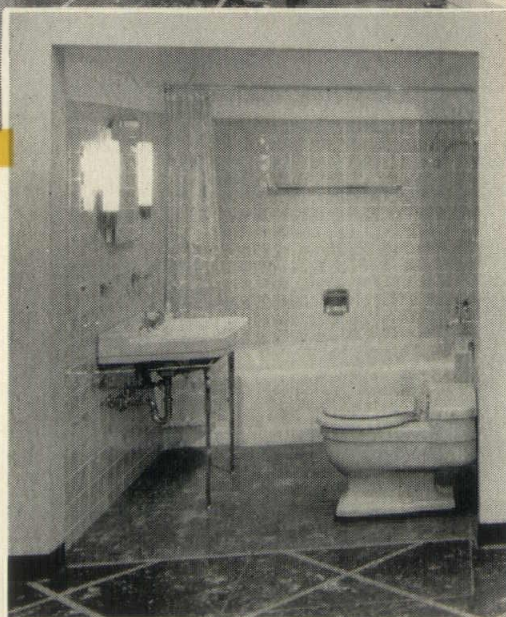


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# ENVIRONMENT

## Theme of 84th Annual Convention of American Institute of Architects to be Effect of Design of Buildings on Human Activities

Environment, much bruited about human activity factor whose effects are deeply felt and widely important, will be given an architectural going over as the theme of the 84th annual convention of the American Institute of Architects to be held in New York City, June 24-27.

Glenn Stanton, A.I.A. president, in announcing the theme for the meetings, pointed out that today's professional designers weigh carefully the work and play patterns they create when designing a building and must know much of environment so created as it



President  
Stanton

influences the humans working and playing within its scope.

The theme of the convention will be developed in its program to illustrate the formative influence of the architect's work, whether in the design of a modest individual house or of an entire city. The meeting will be addressed by leading members of the profession and guests especially chosen for their ability to contribute to the theme. A final program with the names and subjects of all speakers will be released early in May.

Arthur C. Holden, New York architect and convention committee chairman, heads a group that is arranging visits to buildings in New York, tours, inspections of architectural offices and other activities that will further illustrate the idea of architecture as a factor in man-made environment.

The great gain in building technology which has given today's architects unparalleled resources with which to create new environments will receive special emphasis. The theme of the building products exhibit, "Structural Resources for Architectural Design," will carry out this idea. Executive arrangements for the exhibition have been undertaken by the Producer's Council, Washington, D. C.

Technical sessions of the convention will follow the general theme but with greater emphasis on structural resources of the architect. A major focus of interest this year is the relation of structure to materials' conservation objectives required by the defense effort. The program will include material on pre-stressed concrete, thin shell vault and dome construction, prefabricated structural unit construction in concrete, reinforced brick masonry, aluminum as structural frame material and trends in structural design theory applied to reinforced concrete and steel, including welded steel. The American Institute of Architects, wishing to acknowledge the Centennial of the American Society of Civil Engineers, will invite members of that society to present certain aspects of the theme.

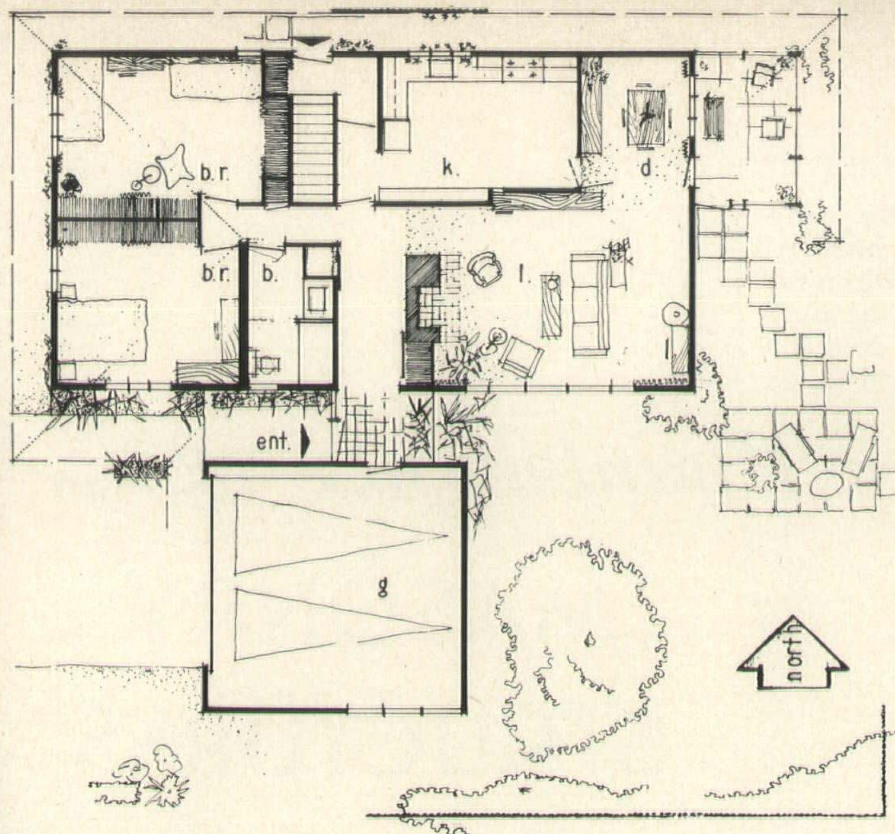
"The quarter-century since the American Institute of Architects last met in New York City have been rich in illustrations of the architect's work in housing, redevelopment and city planning," Mr. Holden said.

"Our work in designing air ports, terminals, shopping centers and similar types of modern buildings, has required the development of the architect's understanding of human activities, routines and processes. Our buildings today are designed to strengthen and support these activities. Today's architecture has become dynamic as it deals with the movement of people, the flow of traffic or the requirements of people doing things. Whether we are designing a kitchen or a department store, our planning is responding to a new understanding of the importance of buildings as the place where things happen."

"In his analysis of such problems the architect enlists the contribution of many specialists—economists, engineers, analysts and experts of many sorts. These consultants are increasingly valuable but in arriving at his solution and expressing it in design the architect has to make his way pretty much alone. That is why

*(Continued on Page 34)*

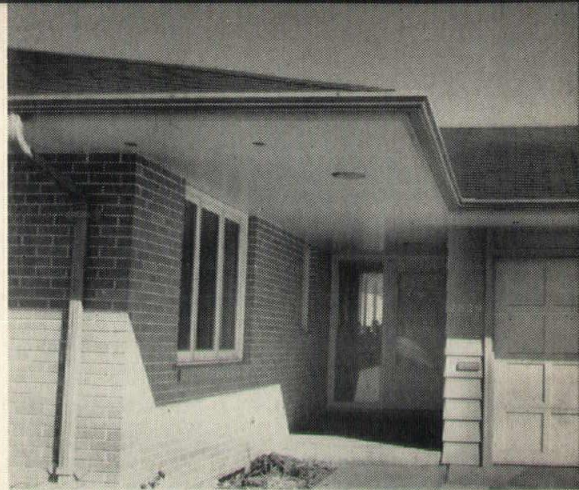




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# Memo

Maintenance and repair become more important to the architect and engineer during times like these when restrictions hold down the rate of new construction. Thus a story like that we print here becomes of enhanced news value. . . . Editor.

## Maintenance of

# MASONRY STRUCTURES

### INTRODUCTION

During times of high building costs and scarcities of certain critical materials, the proper maintenance of existing structures becomes increasingly important. Likewise, in the planning of new buildings, the type of construction to be used should be selected with the ease and cost of future maintenance uppermost in mind.

Good workmanship, proper design, and the selection of the right material are the first steps in the solution of future maintenance problems. If the proper grade and type of brick, tile or terra cotta are selected, maintenance costs can be materially reduced. This is true in an esthetic sense as well as structural. For example, in a locality free of smoke and soot, clay masonry units of any color or texture may be used. In highly industrialized areas, however, a smooth textured, dark colored unit, with low absorption, will permit rain to wash the wall clean and thus help reduce maintenance costs. If the wall is properly constructed and structurally sound, it can be expected to require little maintenance over a period of many years.

Completely filled mortar joints, characteristic of good workmanship, and the use of brick and tile, whose physical properties can meet those required for the proper grade, will help prevent structural cracks and leaky walls.

Many of the stains common to masonry work could be easily prevented. Care in workmanship will prevent mortar and paint stains. The use of drips under projecting sills, belt courses, copings, etc., will prevent water-washed dirt stains. Proper design to prevent rust or other metallic stains from streaking the wall will also reduce future maintenance costs.

The omission of flashing, the use of an improper type, or good flashing improperly placed is often responsible for the most serious maintenance problems. Unflashed brick or stone sills, projecting courses and, particularly, copings generally result in leakage or, at least, disfigured walls caused by efflorescence.

The two principal categories in the maintenance of clay masonry structures are cleaning and the repair of leaky walls. These will be discussed briefly on the following pages.

### CLEANING EXISTING CLAY PRODUCTS MASONRY

The principal methods of cleaning older masonry structures are sandblasting, steam or steam and water jet and the application of cleaning compounds. The

first two of these are used principally on large buildings, as considerable equipment is necessary for either method. Cleaning compounds may be applied to either large or small structures and are generally used to remove stains or discolorations which are confined to relatively small areas of the wall.

Sandblasting consists of blowing hard sand by compressed air through a nozzle against the surface to be cleaned. The sand removes a thin layer from the wall surface, the thickness of the layer depending upon the depth to which dirt or stain may have penetrated the wall. Although this method is effective, it destroys the original texture of the units and leaves the wall with a coarse texture, which is particularly susceptible to the accumulation of soot and dirt. Due to the difference in hardness between clay units and the mortar joints, sandblasting may also do serious damage to the joints. Therefore, sandblasting must often be followed by tuck-pointing the mortar joints in order to eliminate the possibility of future leakage. Sandblasting should never be used on glazed units or other units having special surfaces or textures.

The steam or steam and water jet method of cleaning consists of washing the wall with a steam or steam and water jet under high pressure. It is effective in removing soot and dirt which accumulates on a wall over a period of time. Best results are obtained when it is used on low absorption units or on glazed ware. However, it has often been used with fair success on high absorption or rough textured units. It is not effective in removing stains which have penetrated into the pores nor in removing such substances as mortar stains or paint.

The use of cleaning compounds is applicable to structures of all sizes and is probably used to a greater extent than any of the other methods. On large projects, the cleaning contractor, specializing in such work, develops a cleaning compound best adapted to the particular job. This is done through an examination and





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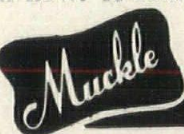


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analysis of the material and stains to be removed and the strength and chemical composition of the solution is usually adjusted by trial.

The addition of alkalized salts to the cleaning water in the jet method aids materially in the cleaning action, but a word of caution is necessary since some of the salts will remain in the clay units and may cause efflorescence at a later date. Many cleaning solutions contain salts which may also cause efflorescence. For this reason the surface to be cleaned should be thoroughly wetted with clear water before the cleaning solution or steam water jet is applied, as well as being rinsed thoroughly with clean water after the application.

The treatment of stains on clay products masonry is one in which a discoloring material, of more or less definite composition, is treated with a cleaning agent suitable only for that particular case. Such treatments are not always successful and, in many cases, require persistent and repeated efforts. Stains are usually present in small localized wall areas and are thus susceptible to treatment by these methods which sometimes are rather tedious. For a more complete discussion of the removal of various types of stains from masonry walls, the reader is referred to Vol 1—No. 5, May, 1950, of Technical Notes on the general subject of Cleaning Clay Products Masonry.

Since the surface of glazed units is normally impervious to penetration by liquids, an existing wall of such ware would not be expected to present as much of a cleaning problem as one of more absorptive units. Etching of the glaze by acid or alkali attack, or marring of the surface by abrasion, constitute the main source of possible damage resulting from the improper use of cleaning agents. Ceramic glazed units can be satisfactorily cleaned with a solution of soap and water; the use of soft water is preferable and, if not available, hard water may be softened by the addition of trisodium phosphate or one of the several available packaged household products. More stubborn discolorations may usually be removed by a gentle scrubbing with a household scouring powder. Extreme care should be exercised, however, to select a cleaning compound which will not erode or etch the glaze. Most cleaning preparations contain scouring grit, powdered soap or carbonate of soda. The per cent of scouring grit varies in different cleaners from 30 to 90 per cent and, as it is frequently harder than the glazed unit, it has a tendency to scratch the glaze. Before using such a cleaning preparation on glazed surfaces, it should be tried out on a small area to be sure that the scouring grit will not mar the finish.

Sodium hydrosulphite, acidified sodium fluosilicate and ammonium bifluoride have been used effectively

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with glazed ware and, if sufficiently diluted, are not apt to etch the glaze. The cleaning solution should be prepared by adding one-half to three-fourths pound of any one of the above to one gallon of water. When using these compounds, all metal and glass should be protected from the cleaning solution. The cleaner should be mixed in wooden containers and, in applying it, rubber gloves should be used to protect the hands.

**Removing Efflorescence:** The term "efflorescence" generally refers to a white powdery substance sometimes seen on masonry wall surfaces. It is composed of one or more water-soluble salts which were originally present in the masonry materials, carried to the surface by movement of water which had entered the wall, and deposited on the surface on evaporation of the water. It can frequently be removed by water applied with a stiff scrubbing brush. In those cases where this procedure does not remove all the efflorescence, the surface should be scrubbed with a solution of muriatic (hydrochloric) acid, not stronger than one part of the commercial acid to nine parts of water by volume. It is highly important that the recommendation regarding water rinsing of the wall, both before and after acid washing, be followed. It may be desirable at times to give the surface a final washing with water containing approximately 5 per cent household ammonia.

Occasionally a green stain will appear on buff or gray facing brick or tile. This may be a form of efflorescence resulting from vanadium or molybdenum compounds in the clay units. Hydrochloric acid should not be used in attempting to remove efflorescence resulting from such compounds. The acid may react with the vanadium or molybdenum compounds, converting them to an insoluble brown stain that is practically impossible to remove, other than with sandblasting. A cleaning method that has been used successfully in many such cases is to wash the stain with a solution of caustic soda such as one part "Drano" to 10 parts water. Here again, the wall should be washed with clear water, both before and after the application of the caustic soda solution, and precautions taken to protect the clothing and skin of the person using the solution. In general, when such green efflorescence stains appear on buff or gray facing units it is recommended that the manufacturer of the material be contacted for recommendations concerning the best method for removing such stains.

### REPAIRING LEAKY WALLS

While properly constructed clay masonry walls are remarkably free of costly repair and maintenance, the repair of a wall that has developed leaks because of poor initial workmanship or design is often difficult and expensive. Care in the selection and use of mortar, adequate flashing and tooling of joints will probably add only a small amount to the initial cost, but will insure a low maintenance overhead throughout the life of the property.

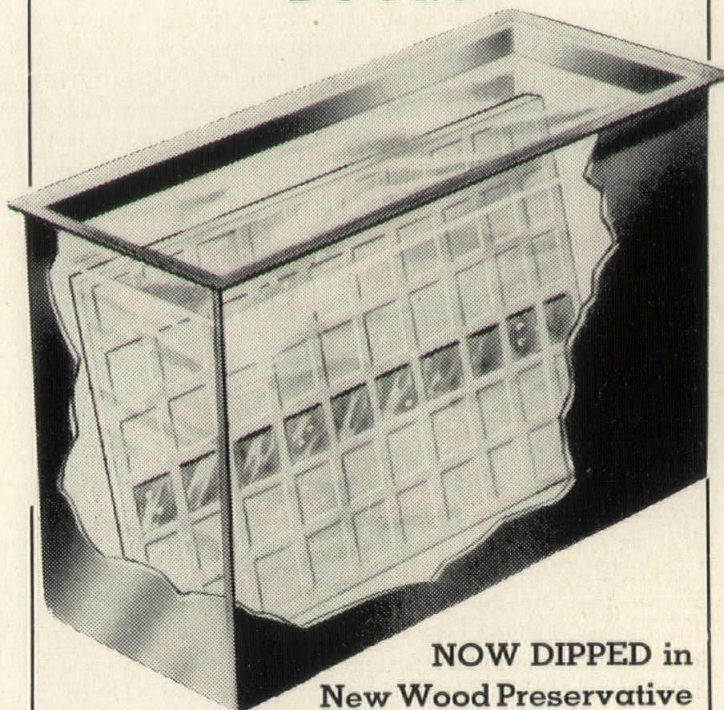
**Tuck-Pointing:** Where the mortar joints have softened or disintegrated or large cracks are noted, it will be readily apparent that protective measures must be taken to correct or prevent leaky walls. This is done by

(Continued on Page 35)

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Wood sections shall have stiles and rails of vertical grain Douglas Fir, hardwood dowelled and steel pinned, water-proofed glued. Rails to extend full width of door. Panels to be of three (3) ply laminated fir 1/4" exterior plywood manufactured by the hot plate process with phenolic resin glue.

#### HARDWARE

Hardware shall include safety torsion springs on a continuous shaft across full width of door, rustproofed aircraft type cable (chain not permitted), rollers having a minimum of ten (10) ball bearings 1/4" diameter with both inner and outer races of hardened steel (use of roller shaft as inner race will not be permitted), bottom corner brackets mortised under bottom of door and of sufficient height to be secured across both rail and stile. Doors over 12'6" wide shall be additionally reinforced with suitable horizontal trusses to prevent sagging when open. Doors over 16'0" wide shall have suitable support to prevent sagging when closed.

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# 1902 and the Gilded Age

(Continued from Page 7)

**T**HIS BIT OF HISTORY cannot usefully be left as simply my Kodachrome sunset. Those days flow in continuity to this day — flow on like cinema ribbons yet to be processed. I have told you how sincerely I value the current architectural thought and the amazing variety and force of the production that flows from it. I reject none of the imaginative forms that daily spring new and enthusiastic. I shall discount my compliments not a whit when, with some misgiving, I ask you to view with me the next reel, whose focus is in your hands.

Exactly as vision was desperately needed in 1902, we must come to see that all forms, past and current, are comic or tragic masks. Behind them the same types and classes of men — the same impractical idealists, seekers for personal advantage, egotists, politicians are at work in all ages; only their means and manner of expression vary. So ask yourself, *can we be sure that the old Hierarchy-of-the-Appliqué has not begotten grandchildren who also are not immune to the sweet savor of privilege and the comfort of such pasteurized ideas as can be lifted from cross-referenced indexes, for thought-free application to any problem?* Today we so despise the designer who turns to Athens, Chartres, Hampton Court or Cape Cod, that few would dare to do it. But how about designers who turn to drawings and photographs of today's creative masters and in a neo-McKim-Mead-and-White spirit, lift living and justly popular patterns in order to appliqué them on projects that never grew from seed.

**I**T APPEARS TO ME that design principles, as everywhere currently applied in office and classroom, still need practical examination for soundness of philosophic content as much as they did in 1902, even if in different association. Before asking you a few specific questions in illustration of the implications, may I warn you against a quick fix about my views which later words in my sentences will I hope show to be no part of my thinking procedures. Especially will my words be of no use to you, if you assume that one who began to be an architect fifty years ago is still living in the past, no matter how far ahead he may have been in 1902 or in 1922. So to establish my right to furnish the caliper with which I hope you will be willing to test your present values, let me rejoin my professional partners, George Feick, Jr., Cornell '03, and George Grant Elmslie of Mr. Sullivan's office, 1887-1910, to ask you some questions which have a kind of prophetic bearing on the possibilities which now rest, only potential, in your intellectual department:—

**D**O YOU USE CORNER WINDOWS because the building must have them or because you like them?

*CONSIDER that with uniform facade spacing, corner windows produce twice the light and exposure to sun heat for the corner unit of floor space. This could be*

*and often is undesirable. The corner window is now a sort of modern classic "Order-of-Architecture" which can be as downright silly as the old Roman temple bank. And too, this goes for the window-wall.*

**A**RE YOUR CONTRAPUNTAL FIRE PLACES organized to enclose the relation between "people-and-fire" feelings, or to establish some focus of esthetic activity and self conscious authorship?

*RECENT FIREPLACES seem to run to types of masonry beartraps, set on a trigger of two-inch gas pipe. A glowing log could roll hot coals against the heat softened steel and crash the whole perch of feed-lot rubble. Some emotional factor is driving designers to include all sorts of threatening imbalances, or barely adequate net constructions. Is this significant? The war scared American psychology, at work here on a national scale, is worth examining. At any rate keep in mind that disaster to the correctly mathematic'd Tacoma Bridge. Nature and man hold many kinds of threats not included in the figuring of engineering formula statics.*

**A**RE YOUR IRON PIPE COLUMNS a materialization of every action, — static and dynamic, material, structural, mental and emotional, which actually exists and will keep recurring at your alleged structural points. Or do you just favor pipe columns as "what 'they' are all doing now?"

*IF YOU MERELY SUBSTITUTE a row of steel pipe columns for a row of stone columns — the stone posts are still there!, just as surely as the old Roman cart still rides the 4' 8½" gauge of all our railroads. When you use any steel pipe column, every aspect of your project moves at once into a wholly different aesthetic area. Every value, pattern relation and all resulting emotions activate their potentials in a new world as far removed from stone as wood is from textiles.*

**Y**OU ARE AGAINST the angles and rectangles, the things squared up, the fenced-in rigidity of drafting board operations. So am I.

*BUT WHEN YOUR FREEDOM leads you to the reiterated clichés of amoeba-form tables, amoeba-form rugs, trees, pools, decorations, is this really an organic emotional response which you desire your building to record, or could it be just a conditioning of your social standing as architect by means of "the-old-school-tie" gesture; token of herding with the best people?*

**A**SK YOURSELF; do you feel confident that the decisions made during your designing, control in fact the materials and assembly in and on the building to be.

*OR ARE YOU only making a pattern on paper that will accept color and accent, fill the roving eye of the jury and thus secure favorable focus on your graphic essay? You may actually be diverting attention from the, as yet, nebulous future building under the sky. Such an approach is in no sense Architecture.*

**T**OO OFTEN there is also a similar exhibitionism in the building itself, even if you keep a hot conductor between drawing and product under the sky. I had a letter from a University of Chicago, Breasted Egyptol-



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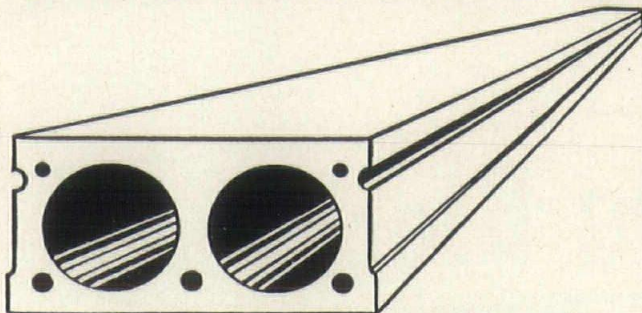
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ogist turned sculptor, who writes me about our United Nations analysis — and Lewis Mumford's. Says Louise Cross:—

"I should like to write you a few remarks on the architects' use of the word 'functional.' I believe in the idea, but think the word is sometimes rather oddly used.

For instance, I don't like the white marble facings on the U. N. Building, because I don't like white marble. It does serve the function of keeping out the wind and covering beams and inside walls which need weather-proofing. (Or is there a way of doing that without any covering?) I find many people think green tile more 'functional' than white marble. Why? Better looking, sure, and gets dirty more nicely. But what's the difference in function? Incidentally the rather raw U. N. Building is awfully easy to find, which for many foreigners I suppose has a functional quality!

People who discuss New York buildings rarely realize that we the public see only two aspects, (never the building as a whole); 1/ we see the door and street floor as we pass; 2/ we see what it does to the sky-line as one sees it if high enough up to see the sky-line. So, viewpoint makes lots of difference—that is extreme close up, or very long-distance, with a lot of other buildings in the picture. But both views 1 and 2 are partial. One never gets a look the way the drawing shows the building. People should not be obliged, pressed by architectural form, to keep thinking of buildings as isolated parts!"

Sincerely, L. C.

You will find in this letter a view often expressed in NORTHWEST ARCHITECT, that architectural values are presently too much addressed to eye values. Today's design, as an esthetic communication, seems aware only of the experience of seeing. We address a world of advertisement fans. Architects should be held accountable for a free fabric carrying the *whole idea* of the building and *all its functions* physical, mechanical, social, mental and moral as it moves in SPACE, TIME AND MIND. We need buildings which are sympathetically conscious of people-in-satisfying-activity. Every waking minute we are all occupied, one way or another, with buildings. We need an architecture that responds to and in its turn nourishes sincere emotions. We now concentrate only on forms that provide convenience or entertain.

I propose that you substitute for *static* esthetics a philosophy of forms in a constantly changing development *continuum* shaped by action-meaning. Such a fluid concept would anticipate total grasp by even the simplest people. Everyone could thereby come with perfect naturalness to understand and be grateful for an expanding and enriched folk life. This idea envisions all the evening in *all their ways* being recorded in living agencies and enjoyed by all. Architecture on such a base would at all times recognize design as *process* rather than as *objective*. So far I have seen no evidences of this basic issue being discussed by anyone. The possibilities are too vast to be analyzed here. I simply lay the tickets on the table for your further exploration.

**WE** HAVE ALL made great strides in many, many ways and the benefits derived must be well used. But in our over-equipped lives we are fondled with prosperity and constantly sold the idea that gadget-living, push button results, and an aisle-seat for life's shows will produce joy.



**O**UR ARCHITECTURE reflects this kind of exploitation and is right now in great danger from the very same monopoly control which put an embroidered curtain around buildings back in the nineteenth century and ruled from a marble throne with a solid gold T-square. Everything and every idea "sold" to the public shows evidences that heirarchy and the rule book is again pressing its "un-architectural" agendas. Prestige is imputed to rules and taboos. This is the basis of the architect's present return to a graphic esthetic. The travel direction is unmistakable.

We must build up a moral resistance lest we become preoccupied with *means* to the disadvantage of the unfolding *ends*, — ends for the benefit of people seeking ways to accomplish *objectives-other-than-mere-possession-of-your-buildings*. In our deepest heart, our dearest goal must be BUILDINGS OF THE PEOPLE, FOR THE PEOPLE and in the very broadest sense BY THE PEOPLE.

Even the brief examples which space has permitted me here will, I feel certain, secure your agreement, in part at least, to the conclusion that architectural causes are much too obsessed with drawing. Every published project shows it. The curricula of all Architectural Schools show it. Our buildings are crystallized drawings. As students and teachers could you not agree that curricula should provide for several years with no drawing or painting, just to make certain that the student becomes conditioned to "thinking building," "on the hoof."

**I**N THIS CONNECTION let me pass on to you a question which the great Danish master Nyrup asked *me* during my student travel days in Europe. We were sitting in his home, one golden September morning in 1906, looking across the square to his noble and at that time new and startlingly radical Copenhagen Town Hall. Said he, "Tell me, Mr. Feick and Mr. Purcell, — at your Cornell University Architectural College just how the craft studies, such as brick laying, carpentry, textiles, and machine shop are integrated into so very short a course as your four years? What is the equipment of your shops and how competent the instructors and assigned projects?"

Embarrassed? We were indeed! I had to tell him we *had* no such studies — only Cornell engineering students had shop, — machine shop and foundry. No one then — nor since, to my knowledge — thought this paradoxical.

With European courtesy Martin Nyrup assumed that his English wife had mistranslated so he asked me all over again. He just could not believe it, but when obliged to, he changed the subject to Theodore Roosevelt who had the world spot-light in that day. For twenty years until Nyrup died I kept up my friendship with this great man, as I did with H. P. Berlage, the prophetic Dutch Architect, and with the pioneer Boberg whom I had met in Stockholm.

So in behalf of Mr. Martin Nyrup, a very great Architect, may I ask *you*: the past summer did you work

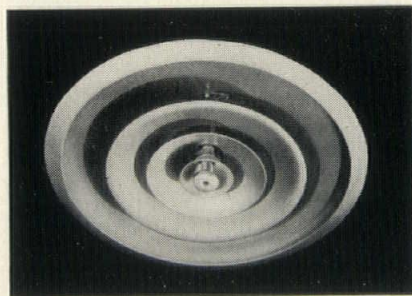
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## Performance Is What Counts!

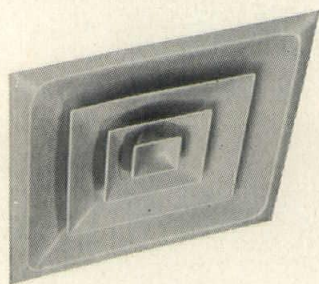
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*Aerial photo courtesy St. Paul Housing  
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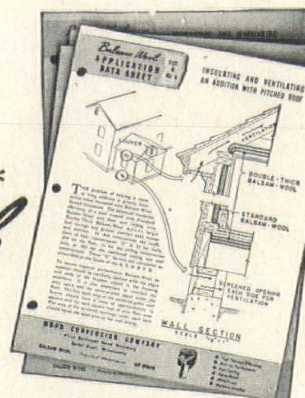
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Just as I reached this point in came my old friend Douglas Donaldson, craftsman and teacher of decorative design and color in Southern California since 1910. He is always primed with stories right out of his exciting and widely varied work. Said he, “I’m helping a school teacher with her house — very limited funds — former pupil of mine. She said to me the other day, ‘People think they must live like the colored pictures in the magazines.’ She said, ‘All I ask of this home is that when my husband comes home, my children will run to put their arms around him and give him a kiss.’”

Let’s stop being intellectual. Let’s give up self-importance and all petty inter-level class distinctions, let’s “be no respectors of personages.” As architects-of-the-very-best that is offered us in this United States of America, let’s make it possible for all kinds of people to flow happily into our productions, and want to work, and take roots in them; want to base a *living* tradition unselfed deeds on personal integrity. W.G.P.

## MORTGAGE MONEY SHORTAGE HAUNTS DEFENSE HOUSING PLANS

Lack of adequate mortgage money in defense construction areas is one of the principal deterrents facing designers and builders undertaking contracts for housing in these locations, according to the National Association of Home Builders.

Alan E. Brockbank, builders’ president, said plans are nevertheless being pushed. Added to the mortgage problem, he said, were other shortcomings which hampered the projects. Lack of community facilities, such as utilities, sewers, streets, schools, etc., presented major problems.

Financing delays were attributed primarily to the fact that the government insured financing plan for defense housing is so new. Lenders are not familiar with all its aspects and have shied away from lending the amounts needed.

Just off the press is a builders group booklet on this phase of construction. Titled “Housing for Defense,” the bulletin is obtainable from the association at 1028 Connecticut Ave., N.W., Washington 6. It covers persons eligible to buy or rent defense housing, types of housing, rent and sales ceilings, number of units programmed and other pertinent facts about the projects approved.

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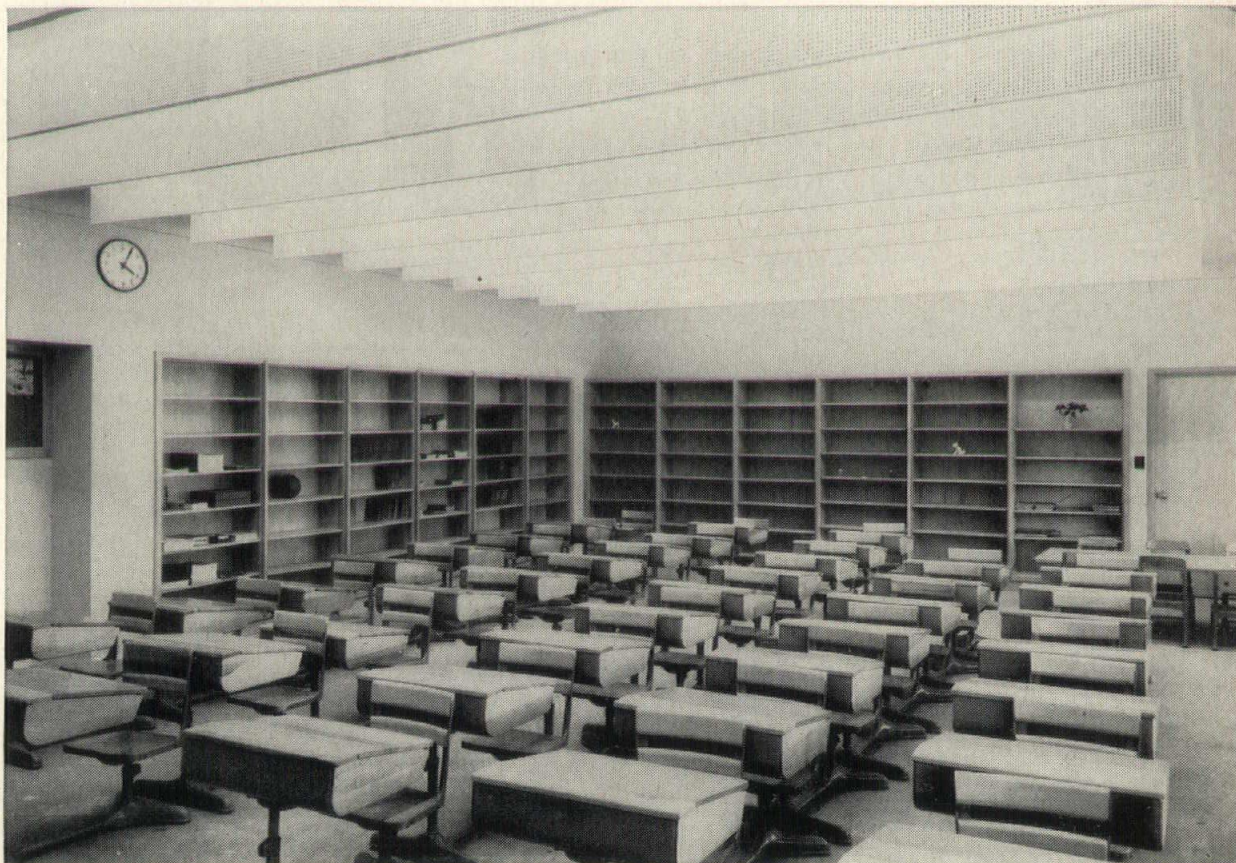
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# F.Y.I. (For Your Information)

## NEW WOOD PRESERVATIVE USED ON CRAWFORD "MARVEL-LIFT" DOORS

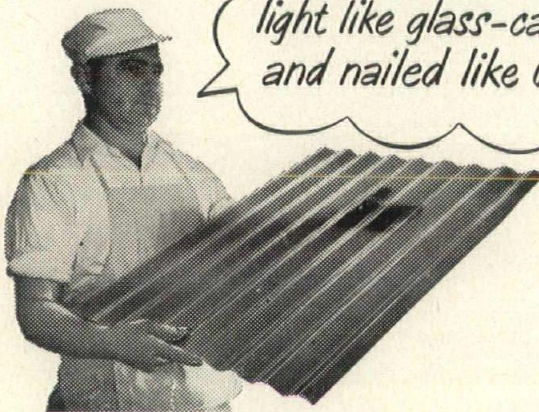
Treatment of Crawford Marvel-Lift Doors with a new preservative which protects all surfaces against moisture, fungi, etc., has been announced by J. R. Raymer, Jr., pres-

ident of Raymer Hardware, St. Paul, agency for the doors.

The new preservative, Magi-Cote, has a high degree of penetration into the wood of the doors. In the process each section is submerged in a bath of Magi-Cote, remaining there long enough for the preservative to penetrate and fill all wood

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pores. This penetration is of such extent that the average 8-foot by 7-foot door absorbs three quarts of the liquid.

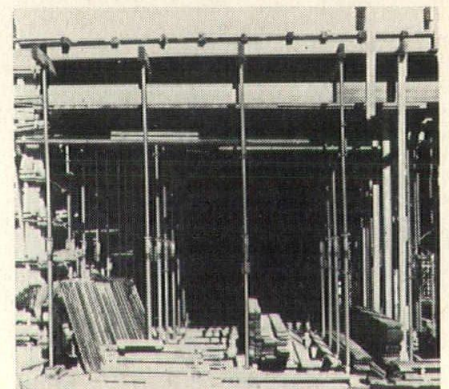
After stack drying the doors have their pores filled with the preservative and it forms a tough seal over the surface. All edges and exposed joints are thoroughly protected, thus eliminating dangers of breakdown of those edges and ends usually left unpainted. The preservative treated door is protected for life against moisture, fungi, termites, dry-rot, etc.

The treatment does not change the colors of the woods and is an excellent base for varnish or paint because it controls wood porosity, Mr. Raymer pointed out. This improves the adhesion and life of any finish coat.

Literature is available from the company at 180 E. 6th St., St. Paul.

## FINE ADJUSTMENT POSSIBLE WITH NEW SAFWAY STEEL SHORES

Positive, flexible, safe support for shoring forms for concrete slabs, beams, columns, walls, tunnels and other structures is possible with the



The shores in place, showing spacing and other important features.

easily fitted new Safway telescoping steel shores.

Three sizes give a range from 6 feet to 15½ feet, each having a 5-foot range of adjustment. Heavier load-bearing capacities to as high as 9,900 pounds, with adequate safety factor, are made possible by the special sleeve nut design. This allows for use of fewer shores and better working space.

No jacks are required. Rough setting is done by sliding the telescoping parts into position and then a fine adjustment is made by a 6-inch



threaded nut. The U-shaped head plate allows for holding form members without mailing although where mailing is desired there are staggered holes for driving them.

Base plates are 7 inches square and are welded at exactly 90 degrees for accurate setting. Under normal conditions, the shores need no bracing to heights of about 12 feet.

Detailed information can be obtained from the Sales Department, Safway Steel Products, Inc., 6234 W. State St., Milwaukee 13, Wis.

#### CECO STEEL BUYS STERLING WINDOWS

Ceco Steel Products Corporation has purchased Sterling Windows, Inc., with manufacturing facilities in New Castle, Ind., according to W. H. Rabe of Ceco's Minneapolis office.

Sterling is one of the country's leading makers of both commercial and residential aluminum double-hung windows. The facilities of the firm in New Castle will continue to provide old and new customers with the same lines and quality as in the past.

#### AIRXPELER TWINS GIVE WIDE RANGE OF VENTILATOR UTILITY

A twin selection which gives building designers a unit for low static and high static pressure is now available at real economy in the "AirXpeler Twins," the PB Power Roof Ventilator and the BW-Hi Static Ventilator, according to Mr. Ammerman of the C. L. Ammerman Company, Minneapolis.

Engineered for high efficiency and good design to blend with themes of modern buildings, the AirXpelers PB incorporates a specially built pressure blade. The unit has been thoroughly tested and proved in thousands of installations in all parts of the country.

The original design elements which made the PB model (exceedingly efficient at static pressures up to 1/2 inch) have been carried into the BW model—equally efficient at

ARCHITECT



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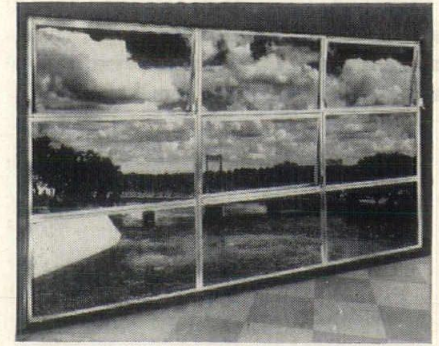
static pressures above  $\frac{1}{2}$  inch. The BW Hi-Static Ventilator uses a regular forward curved blower wheel and scroll housing. A full venturi inlet eliminates turbulence allowing air to enter the blowers freely, which lessens the air noise level to a minimum.

A spun storm band allows the discharged air to move freely to the atmosphere and eliminates back pressure, down draft and noise. Air-Xpelers move an enormous amount of air with very little motor power.

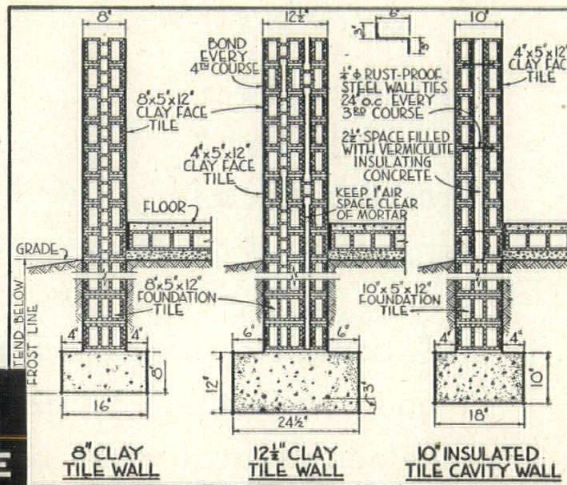
## WINDOW WALL SASH HAS THERMOPANES

Installation of window walls on a unit basis is possible with the new "Marmet" Window Wall Sash made by Marmet Corporation of Wausau, Wis., pictured here.

The sash is available in single sash width and single height to a multiple of three sash wide or additional multiples of 1, 2 or 3 sash wide and 1, 2 or 3 sash high. The sash is shipped unglazed. Only two sizes of Ther-



This is the way the Marmet window appears in a recent installation.



## LOADBEARING BRICK and TILE WALLS

*... one of many ways to save critical structural steel*

Because brick and tile construction is loadbearing, it eliminates the necessity of structural steel frames. Loadbearing masonry is generally limited to three stories or less.

In buildings of greater height, reinforced grouted brick masonry can often be used, again eliminating structural steel frames.

Illustrated above are typical examples of loadbearing cavity wall construction. Here are some other important steel saving features of structural clay products; reinforced clay tile or brick arch lintels, clay masonry piers and pilasters, tile and concrete floors and furring with clay tile.

*Write today for complete information on non-critical clay products.*

## Structural Clay Products Institute

Region 6

Ames, Iowa

mopane are needed, one for the fixed and one for the operating lights.

The Marmet window wall saves labor at installation and minimizes upkeep. Screens can be installed on the inside of the operating sash.

## COPY PROCESS DESCRIBED

Time saving by use of copy machines can be a vital operation in the larger architectural offices and a description of the Copyflex Process of interest to designers has been released by the Charles Bruning Co., Inc., 4700 Montrose Ave., Chicago.

Copies of originals on translucent materials are made in a matter of minutes on the machine. The machine uses a number of papers, which give the architect the surface he needs to work on while giving him access to the time savings of the machine.

## TWO COMPANIES ISSUE MOVABLE PARTITION INFORMATION

Increasing use of mobile interiors to meet changed space demands of growing businesses is reflected in current issuance of two brochures on movable partitions by two of the field's manufacturing leaders.

The Mills Company, Cleveland, Ohio, has issued a 48-page, well-illustrated Catalog No. 52 on its movable metal walls. The booklet shows details, suggests varied uses and shows photographs of typical installations. It gives the architect a complete picture of how and where to use the mobile space arrangements.

Care and maintenance of this kind of partition is the subject of a booklet available from the E. F. Hauserman Co., Cleveland. It carries the designer into the subsequent prob-



lems of maintenance, cleaning, servicing of wiring, hanging of pictures, etc.

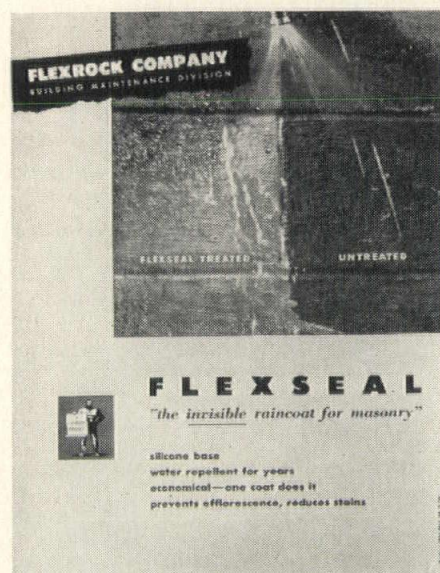
Both are available on request from the companies.

### FLEXSEAL SILICONE BASE REPELLENT SUBJECT OF BOOKLET

Technical data and information on application of Flexseal silicone-base water repellent are included in a new pamphlet issued by its makers, the Flexrock Company, 26th and Filbert Streets, Philadelphia 4.

The new Flexseal repellent can be used on brick, masonry, concrete, sandstone, limestone, stucco, cement-base paints, etc., to excellent advantage, its makers point out. The bulletin discusses how the product penetrates walls to as much as  $\frac{1}{4}$ -inch, yet leaves the pores open enough for the walls to "breathe." Capillarity is reduced to a very low level.

One feature of the product is that it can be applied at temperatures as



The new silicone base repellent booklet now made available.

low as 15° F. Its makers claim it is practically self-cleaning, eliminates efflorescence and other water-soluble or water-carried stains. It is invisible when dry.

### NEW BUILDING PLASTIC IS FIBER GLASS REINFORCED

A new plastic building sheet, translucent and reinforced with fiber glass, has been placed on the market by the Plexolite Corporation, Los Angeles.

Plexolite, the product, can be had

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in flat or corrugated sheets. Width corresponds to standard roofing siding. It is shatterproof and its makers report it has great structural strength. It is inert in contact with alkaline fumes, moisture and mild acids. It is worked with standard building tools.

Uses for the material are numerous and its properties make it valuable for accent as well as major applications. It can be used in window openings, patios, awnings, skylights,

garage doors, partitions, etc. It is made in 12 colors and three thicknesses ( $\frac{1}{16}$ - $\frac{1}{8}$ - $\frac{1}{4}$ ).

Detailed information can be obtained from the corporation, whose address is 4223-25 W. Jefferson Blvd., Los Angeles 16.

### INVISIBLE HINGE HELPS CARRY DOOR WEIGHT

A hidden hinge, so constructed that its body helps support the weight



of the door and thus lengthens service life of the installation, has been announced by the Soss Manufacturing Co., Detroit.

The Soss Invisible Hinge is com-

pletely hidden, with no obtruding butt. It operates on hardened steel roller bearings and is available in a variety of weight-rated sizes to handle anything from heavy entrance

doors to small cupboard and secret panels.

A catalog of the hinges is obtainable from the maker at 21775 Hoover Road, Detroit 13.

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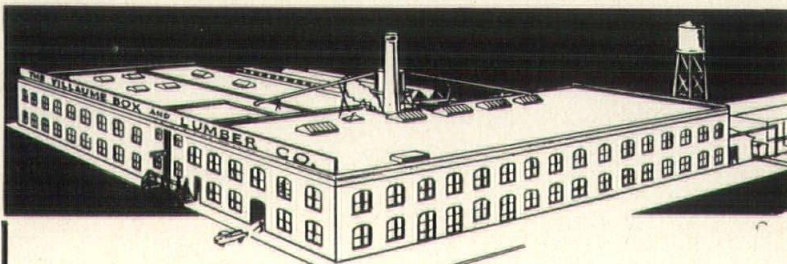
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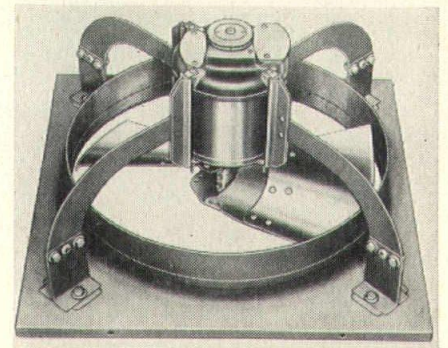
Completely up-to-date data on use of the peculiar weight saving properties of Vermiculite concrete in construction of roof decks and for roof insulation are being made available to architects and engineers in a new booklet issued by the Zonolite Company, 135 S. LaSalle St., Chicago.

Titled "Roof Decks and Roof Insulation," the booklet outlines general properties of the lightweight concrete, gives detailed charts of specification materials, discusses insulation factors and provides the designer with the facts he needs to avail himself of this type construction in his works.

## CORROSION RESISTANCE AMONG FEATURES OF NEW FAN

Available in corrosion-resistant and egular finishes, a new model direct drive fan has been announced by the Herman Nelson Division, American Air Filter Co., Moline, Ill.

The fan can be installed flush



Features of the fan are easily identified in the above illustration.

with the ceiling, totally enclosed motor and mounting being installed in the ceiling itself. Thus the base plate and fan blade are the only visible parts in the room. CFM ratings range from 1,585 in the 14-inch model to 12,400 in the big 36-inch fan.

When corrosive fumes are being handled, the fan (Model MDA) can be obtained with acid-resisting varnish, capable of withstanding al-



kali and acid fumes in moderate concentrations.

This and other products are detailed for designers in the company's Bulletin 3429, available on request.

### PUBLISHES SUGAR PINE BOOK

Publication of a new 52-page book describing the character, uses and grades of Sugar Pine, largest of all the pines, has been announced by the Western Pine Association, Portland, Ore. The book is the sixth in a series which has covered Idaho White Pine, Ponderosa Pine, Douglas Fir, White Fir and Larch and is being distributed exactly 125 years after the Sugar Pine was discovered by botanist David Douglas in 1826. Designed as a permanent working tool for architects, builders, lumber wholesalers and other wood users, *Sugar Pine* is available upon request to the association at 510 Yeon Building, Portland 4. The book is lithographed with a four-color cover and outlines the physical properties of the wood, describes its uses in construction and industry and carries full-page pictures of typical grade examples together with descriptions of each piece.

### WELDED BRIDGE PROGRAM TO CONSERVE STEEL

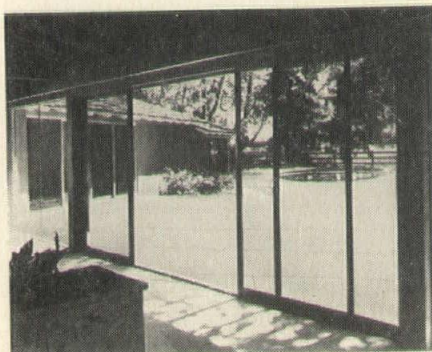
Welded bridges have been built in the United States which have made possible savings in steel ranging from five to twenty per cent of the total tonnage that would have been required had the bridge been riveted, says the Lincoln Arc Welding Foundation. To encourage such steel savings and insure a maximum total national saving, the foundation is sponsoring a 1952 award program, "Welded Bridges for Steel Conservation."

Open to all persons in the U. S. who feel themselves qualified to enter, the program offers 15 awards, totaling \$16,100. Awards will be given for the best bridge designs which show weight and cost savings over a comparable riveted bridge. Entrants are allowed complete freedom as to size and type of bridge. Five of the nation's leading bridge engineers will serve as the jury of award.

ARCHITECT

### SLIDING GLASS DOORS GIVE ALL THAT "MALIBU VIEW"

Providing the California theme of glass walls for all parts of the country is the aim of a distribution expansion program announced by the



Malibu Manufacturing Corporation of Los Angeles.

Selling strictly through area distributors, the corporation plans to make available materials for view creation like that illustrated here. Slogan for the drive will be "A Perfect View Thru Malibu."

### REVOLVING DOORS COVERED BY INTERNATIONAL BOOKLET

Uses of revolving doors, together with specifications of those made by the company, are included in the text of a new publication put out by International Steel Company, Evansville, Ind.

The book also serves as a catalog of the company's other products, including fabricated steel, steel buildings, warehouse steel, etc. Company officials said that the book fills a need for general familiarizing of In-

ternational customers with the fact the company, in addition to being one of the largest makers of revolving doors, has other steel items to offer.

### WARDROBEDOOR CONSERVES SCHOOL SPACE

A closet depth of only 24 inches is required by the newly introduced Wardrobedoor classroom clothes closet made by the Barber-Colman Company of Rockford, Ill., which is of particular value to the designers of school buildings.

A vertical opening wardrobe, the unit can be equipped with chalkboard, cork bulletin board or a combination of the two. The door is counterbalanced and mounted on ball bearing rollers. Standard finish is unpainted fir veneer and they come in 10-, 12- or 15-foot widths.

Bulletin 4644, showing details of the unit, is available from the company.

### TUF-LITE IS NEW SHOWER STALL BASE

A new type of shower stall base offers a trio of features never before combined into one model, according to the manufacturer, Kaytel, Inc. Compared with 300-400 pounds for terrazo, or 80 pounds for steel, the 20 pounds of the new Tuf-Lite Receptor make very light work of shipping, handling and installation. All-in-one-piece, seamless construction assures a leak free lifetime and does away with the need for lead-pan insulation. Made of molded reinforced plastic, stronger than steel, lighter than aluminum.

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# National Economy Needs A Strong Building Industry

A strong building industry must be maintained in the United States as a vital bolster for the national economy, the Construction Industry Advisory Committee of the United States Chamber of Commerce reported at a recent Washington conference. The committee said the industry must be allowed to keep itself at a maximum activity consistent with defense requirements.

The conference wrote its views on construction policy into a resolution that called for a national policy to encourage the planning of both private and public construction projects so they can go ahead at top speed when defense demands ease off enough to make materials available, asked equality as between government and private industry in conservation of critical material and proposed that materials always be made available to complete projects once they are started.

The council had before it a report by Norman P. Mason, chairman of the Chamber's Construction and Civic Development Committee, on a survey of building prospects. Mason made an estimate of between \$25,000,000,000 and \$28,000,000,000 in construction for

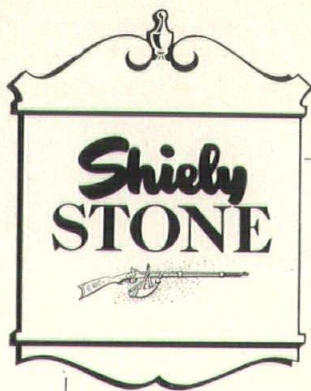
1952, as against a \$30,000,000,000 performance in 1951. His view of construction prospects, therefore, he said, was fairly optimistic under the circumstances. House-building would be harder hit than other forms of construction, he predicted. Generally, he saw a spotty picture among the several types of construction.

Immediate planning for post-mobilization construction was strongly urged by Norman J. Schlossman, Chicago architect.

"We must by all means be ready," he said, "to proceed immediately with all types of construction when circumstances again allow. Many types of projects require whole years of advance planning. If we are to avoid a downturn in future construction volume we already are behind schedule."

Richard J. Gray, president of the Building and Construction Trades Department of the AFL, appealed for labor-management co-operation to combat government controls, which he pictured as strangling building. He was severely critical of what he termed inequitable restrictions on allocations of materials. He proposed a joint labor-management-government screening committee with full authority to deal with requests for materials from both official and private sources.

Charles E. Wilson, defense mobilization director, told the conference that the defense production peak should be reached within the year and that it probably would level off at about \$50,000,000,000 annually. If held to

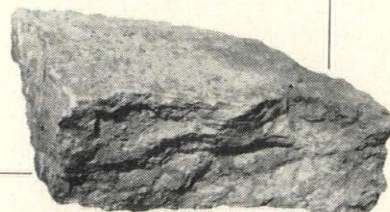


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that figure and if production facilities are increased as hoped, the construction industry, he said, should be able to get more materials than is possible now.

The mobilization director promised the council that projects once started would have materials for completion, as asked in the policy resolution adopted by the conference.

With reference to maintaining both defense and civilian production at equitably balanced levels, Wilson said:

"Some people want all out defense production. Others say we are going ahead with defense production so fast we will wreck the civilian economy. We hope to maintain the \$50,000,000,000 annual defense goal established a year ago as long as the need exists. That will be about 15 per cent of the national income, now estimated, and should not place too severe a strain on the economy.

"All industries that are pinched by material shortages, including construction, feel hurt about it, although figures furnished me by my office show that construction is holding up pretty well, except in certain spots where the pinch is tight. But, of course, there are many difficulties to overcome before we can build all the construction the country needs.

## Architect's Role In Safe Construction

The architect can have an important role in seeing that safety on construction jobs is maintained at its highest possible level. His knowledge of stresses and strains within materials and building units, his acquaintance with safety devices and other factors in his background can be put at the use of the contractors and engineers with whom he works.

In this connection the National Safety Council has suggested some succinct points in training supervisors of jobs. The council's suggestions:

Some workers can learn from written instructions; others need to be told. There are some who cannot comprehend without being shown and some others who can learn only by doing. A good leader with a good personality can ordinarily accomplish best results by instructing men by some or all of these methods but in certain instances he must resort to discipline.

To teach a man safe practices, a supervisor should first have a thorough knowledge of the work and of the hazards involved in it. He himself should have had a good deal of experience in this work and should be well acquainted with the details of accidents that have occurred in his department. He should know the meaning of each safety rule and he should be in a position to give sound reasons for each rule if questioned about it by the men.

However, merely knowing the work and the accident hazards is not enough. The supervisor must pass on his knowledge to the men and must instill in them a desire to follow the safe and efficient methods he suggests. After an accident, we often hear a supervisor say, "I

ARCHITECT

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told him to be careful." But simply telling a man to be careful is not enough. There is a big difference between telling and teaching. Teaching goes beyond mere telling. It includes every avenue of approach to a man's mind to get the idea across. If the worker has not learned, the supervisor has not taught.

A supervisor can often make a safe man of an unsafe man by talking with him to find out the reasons for his unsafe acts. The reasons may be in the shop or they may be in the man's home life. Good counsel from the supervisor may be all that is needed to restore the worker's peace of mind which is so essential to alertness and safe work habits. To be effective in counseling his men, the supervisor must have their confidence and respect. He cannot expect them to follow his advice on

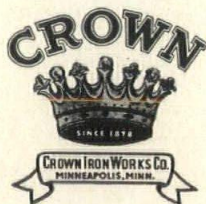
their personal problems or to be sold on his admonitions about sound safety practices unless they feel he knows what he is talking about and has their interests at heart.

As unusual or new job hazards arise, they and precautions against them should be discussed with the men. The supervisor must study each new or unfamiliar job to determine the safest and most efficient manner of performing it. He must talk the matter over with the man doing the job to ensure that the worker knows how to do it safely and must observe the worker's progress frequently enough to be sure that the job actually is being done efficiently and safely. Failing in this, the supervisor fails in his duty, both to the men under his supervision and to the management to which he reports.

New men should command special attention. To make them efficient and safe workers, the supervisor must devote a good deal of his time to talking with them about their work and the best and safest methods of performing it. He must discuss the rules with them, demonstrate the effective and safe ways of performing their jobs, and observe them to detect and immediately correct unsafe practices they may indulge in. Instruction in safety principles must be given repeatedly.

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*(Continued from Page 12)*

architects are trying to strengthen and broaden their conception of their job."

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The exhibition of building products will be the largest ever to be shown at an A.I.A. meeting, according to Mr. Holden. Over sixty leading manufacturers of building materials and equipment will show their products during the convention in an exhibition organized by A. Gordon Lorimer, New York City architect. The Producers' Council, an organization of manufacturers in the building field, is actively co-operating in the exhibition.



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## RALPH W. HAMMETT HONORED BY FRATERNITY

Friends of Ralph W. Hammett, nationally known architect and educator, gathered to honor him at the Alpha Rho Chi Founders' Day banquet held April 18 in the Minneapolis Athletic Club.

High point of the evening was the presentation of the coveted Martin C. Madsen Memorial Key, awarded to Professor Hammett in recognition of his outstanding contribution to the field of architecture, particularly in the educational field. Toastmaster for the occasion was Frank S. Moorman.

Prominent among the nearly 100 members of the fraternity who attended were Professor Roy C. Jones, head of the School of Architecture, University of Minnesota, Leon E. Arnal, professor emeritus, University of Minnesota, and A. Reinhold Melander of Duluth, who was a classmate of Professor Hammett.

Prof. Hammett took his architectural training at the University of Minnesota, where his B.A. was granted in 1919. During undergraduate days he was active in many college interests, an extra-curricular impulse which carried over into his professional years.

His first employment was with Toltz, King & Day in St. Paul, following which he taught at the University for several years. Then his pursuit of an advanced degree took him to Harvard where he won the Master of Architecture degree in 1923. He was a visiting fellow at the American Academy in Rome during 1924-26.

Although primarily an educator, he has done a number of outstanding private design projects. During World War II he served as a major in military government with special duties in connection with monuments, fine arts and archives in France, Belgium, Holland and Luxemburg. He is a lieutenant colonel in the reserves.

## Masonry Maintenance

*(Continued from Page 17)*

cutting out all loose or disintegrated mortar joints for a depth of at least 1/2 in., and repointing or filling with proper mortar. If the work is being done to correct leakage, all joints should be cut out in the affected area, as it may be very difficult in some cases to determine the defective joints by visual inspection alone. If no leakage has been noted and the repointing is being done as maintenance work, it is necessary to remove only the defective mortar.

This cutting may be done by hand or, when large areas are involved, by power tools. Care should be taken not to damage the units during the cutting process. When the cutting is completed, all dust and loose material must be removed by brushing or, preferably, with a water jet. If water is used in cleaning the dust from the points, no additional wetting may be required. The repointing should not follow immediately after the joints are washed. Little, if any, wetting will be necessary when the walls are constructed of low absorption units.

The tuck-pointing mortar should not be denser than the original mortar. The natural tendency to use a

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rich mortar should be avoided in order to eliminate excessive shrinkage and volume change after hardening. For the same reason, it is recommended that the mortar be pre-hydrated before using. In the absence of information on the density and proportioning of the old mortar, a pre-hydrated mortar, mixed in the proportions (by volume) of one part cement, one part lime putty or hydrated lime, and six parts sand, is recommended. It should be pre-hydrated by mixing, at least two hours before using, with only a portion of the required mixing water. At the end of the curing period, the mortar must be reworked, adding the remaining water. This greatly improves workability and much of the initial shrinkage is eliminated. The mortar should then be packed tightly in thin layers and finally tooled to a smooth compact, concave surface.

*Waterproofing Joints:* When the mortar cracks and openings are small, a two-coat application of cement-sand grout, brushed vigorously into the mortar joints, provides an effective and less costly waterproofing method. The typical recommended mixture consists of equal parts, by volume, of portland cement and dry sand passing a No. 30 sieve, with one fourth part of cement replaced by limestone flour, powdered flint or fine hydrated lime. Joints should be thoroughly wetted before applying the grout and a templet may be used to help keep the surfaces of the masonry units free of the grout.

When changing the appearance of the wall is not objectionable, a less expensive method of waterproofing consists of a single application of cement grout to the joints, followed with two coats of cement-water paint, applied uniformly over the entire wall surface. Tests at the National Bureau of Standards show cement-water paints to be highly resistant to water penetration and very durable when properly mixed and applied. It should be pointed out, however, that once such a wall is painted, a periodic maintenance cost must be expected.

*Colorless Waterproofing Materials,* of which there are numerous proprietary mixtures on the market, appear to be of little or no benefit as waterproofing when applied to walls that leak badly, according to the results of tests at the National Bureau of Standards, reported in Building Materials and Structures Report BMS95. Where wall leakage was through very fine cracks between the joints and the masonry units, some colorless waterproofer were effective for a period of a year or two but, after weathering, their effectiveness as a waterproofer became considerably lessened. However, there are colorless waterproofer on the market for which fine performance records are cited. Therefore, it is recommended that before using such material its performance on similar jobs in the area be investigated carefully.

*Flashing:* When the maintenance problem involves the replacement of defective flashing or the installation of flashing which should have been installed when the building was originally constructed, the only proper solution is an expensive repair job which requires removing the masonry units and placing suitable flashing around and under them. When continuous flashing is required in existing walls at spandrels or other locations,



it can be placed by removing alternate masonry sections in widths up to 2 or 3 ft. After the flashing is placed and the masonry properly aged, the intermediate sections can then be removed and the flashing completed. As mentioned above, this is a time-consuming and expensive procedure, but quite often the expense is justified if the work is properly done in order to assure a sound and maintenance-free structure in the future.

**Caulking:** Improper caulking is often responsible for the most serious water leakage around door and window frames, and quite often becomes a considerable maintenance expense. If the caulking was completely omitted, this is easily corrected by filling all cracks with good elastic caulking compound placed with a pressure gun. On the other hand, if the original caulking has cracked, peeled, or separated, it should be completely removed and replaced with new compound. Unless proper pressure is used, only a thin film of caulking compound will be placed. Even with good material this will soon become ineffective. Thin films of caulking should be removed and properly replaced before serious damage is caused.

## CONCLUSION

In general, there is no substitute for good materials, proper design and good workmanship in obtaining a structure that is relatively maintenance-free. While

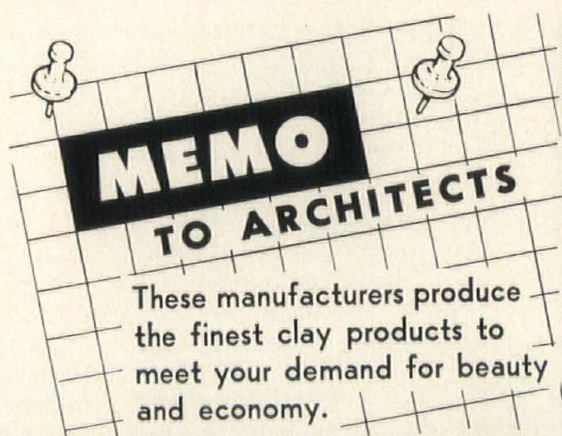
problems involved in the maintenance of clay products masonry are relatively few when compared to many other building materials, in those cases where maintenance cannot be avoided because of the neglect of one or more of the above requirements, the application of the correct remedy can be most effective.

## INFLATION HAS DOUBLED PROPERTY REPLACEMENT VALUES

Inflationary influences since before World War II have brought about a doubling of property replacement values, in dollars, according to a study made by the Security-Connecticut Insurance Companies, New Haven.

"Not only have construction costs doubled since before World War II," the study's authors said, "but practically everything that goes into a home or mercantile or business building has gone up too and in most cases much faster than the depreciation."

It was pointed out that the extent of depreciation varies with the various parts of the country and with the type of construction. Even taking into account depreciation, the companies said, the average home is worth 5 per cent more than a year ago, 11 per cent more than three years ago and 40 per cent more than five years ago.



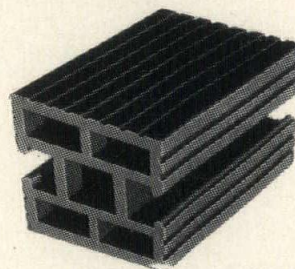
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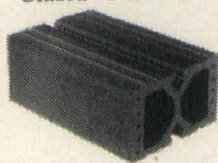
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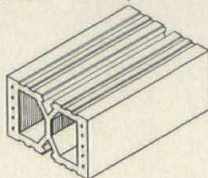


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Packed with those illustrative materials best suited to clarifying the point at hand, be they photographs, sketches or detailed drawings, the book gives the architect a first hand listing of the many things he must know about when he tackles such a bit of construction. The major portion of the back of the volume is given over to 63 shopping centers, each presented with photographs, plans and store list.

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### Anatomy for Interior Designers

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Not far to search why this book is in its second edition, for the wise blending of clever cartoons and the vital basic considerations of scale of buildings and their appurtenances derived from the measurements of man and woman makes it among the most readable.

Little can be added by way of recommendation to the volume's introduction, which tells us:

"Why do we have a second edition of this book? You might say why do you have a second child. It is because the first one seemed healthy and practical. Because publishers are parents and they always believe that the next will be bigger, stronger and healthier. If you own the first edition of this book, you will want the one that you are now holding. If you were belated, you will like this one better because it entails a great deal of material that was not available to us in 1948. For example: in television and floor plan traffic. The purpose of this second child, like the purpose of the first one, is to help you to think for yourself."

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*Tyler Stewart Rogers*

"What we don't know can hurt us," the caption of the foreword to this volume, is the key to its value to the architect for his is a profession where basic knowledge must constantly be used in tempering design's flights of fancy to give a good pattern based on fulfilling needs. Mr. Rogers has been assisted in preparing the volume by a group of experts and the result is good.

Climate affects man's entire living pattern and so the authors have given the architect a clear insight into this in the opening portion of the book. This logically leads to a consideration of heat and vapor control and ventilation in man's buildings erected against the effects of weather. Design data is correlated with the discussions so operating data are constantly at hand.

The factors involved in designing roofs and ceilings, walls and floors in every clime are given detailed going over in other chapters of the book and design calculations complete the book.

Published by **Architectural Record**,  
119 W. 40th St., New York 18, N. Y.  
Price: \$5.50.

## SOCIALIZED PUBLIC HOUSING DOES NOT DECREASE JUVENILE DELINQUENCY

A much greater need for police service has been found in socialized public housing areas when compared with neighboring private residential areas by a study of importance to city planning made by the Los Angeles Police Department. It is clear such housing does not cut down juvenile delinquency.

Aim of the study was to ascertain what extra police services would be required in connection with a proposed 10,000-unit public housing program for the city. The research was made under direction of W. H. Parker, L. A. chief of police. Following the study, the program was cancelled on vote of the city council.

Chief Parker's report showed that not only extra amounts of expensive police protection are required for existing tax-subsidized public housing projects but that juvenile delinquency there is higher than elsewhere. At least 40 per cent of police time spent in juvenile investigation in the Hollenbeck section, for example, was devoted to public housing projects.

In sharp contrast, the nearby privately owned and developed "Wyvernwood" subdivision showed no arrestees living in the project. Even "The Flats," a slum area, had a better record and lower number of resident delinquents than public housing projects.

With a whopping 1950-51 total expenditure of over \$23,000,000 for police services, the average cost per Los Angeles citizen was \$12.04. The bill for policing public housing areas was higher and in several cases double the average amount. A higher percentage of policemen per capita must be deployed there.

For instance, the Pueblo Del Rio project with a population of 1,592 required an expenditure of \$25.80 per

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person. In the Rancho San Pedro project of 1,140 persons the cost was \$20.64 per capita. These figures represented only two of 12 public housing projects described in the report.

Requests in November, 1951, for police help per 1,000 population averaged .8 for the Wyvernwood privately owned housing and 7 per thousand population for "The Flats" slum area.

On the other hand, the Pico Gardens public housing project averaged 17 calls per thousand and Estrada Courts 20 police calls per thousand.

The survey indicated clearly that supposedly "inex-

pensive" tax-subsidized housing greatly changes its "bargain" complexion when hidden costs are brought to light and properly included with expenses of maintenance, repair and administration, observers said.

Another great expense charged to the overall cost of public housing is impossible to evaluate in monetary terms. It lies in the rise of juvenile delinquency in those areas. The deteriorating environment which often appears to surround such projects where children are being raised is a dangerous influence for young minds and can ultimately result in serious repercussions in their future attitudes and responsibilities as citizens, it was pointed out.

### "B" MATERIALS NEED TO BE RELEASED, LANE SAYS

Increased allotments of critical materials for the manufacture of "B" products will be needed to complete the greater number of commercial and industrial buildings which the National Production Authority has announced it will approve, A. Naughton Lane, president of the Producers' Council, national organization of building products manufacturers, said early this month.

"Many manufacturers of these fabricated products, such as heating plants, plumbing fixtures, metal windows, and weatherstripping, are receiving only 30 to 50 per cent as much steel, copper, and aluminum as they normally use, and those quantities will not be sufficient to meet requirements in the third and fourth quarters of this year when the additional construction is to be authorized," Mr. Lane said.

"Present out of 'B' products is being almost completely absorbed in home and other structures started under the self-authorization program. Approving the construction of a considerable amount of additional commercial and institutional building could quickly cause shortages which would result in costly delays.

"Manufacturers' and dealers' inventories accumulated prior to the sharp cutbacks in allotments to manufacturers have been almost completely used up, and the building industry will have to depend on new production from now on."

### Viroqua Hospital

(Continued from Page 10)

"automatic" kitchen, with separate dishwashing room, sterilizers and two walk-in refrigerators, an auxiliary lighting plant, pharmacy, maintenance and work shop, central utility room with sterilizers, locker rooms and a large storage room. The heating plant, incinerator, water softener and auxiliary water storage tank are also in the basement.

Fifty-five per cent of the hospital's cost was financed through a large number of small individual donations, a city bond issue and county aid, the remainder through federal aid. It was erected as a memorial to Vernon County's war casualties and has a large commemorative plaque beside the entrance.

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## ROOF COLORS IMPORTANT THERMAL CONTROL FACTOR

Studies showing that roof colors can make as much as a 25-degree difference in under-roof temperatures have been released for guidance of architects and others in their designs.

The research was done under auspices of the Minnesota Mining and Manufacturing Company and the United States Gypsum Company and was aimed at determining the thermal factors of white, light and dark colored roofing materials.

It has long been known that light colors reflect heat, while dark colors absorb it. Asphalt roofing manufacturers, who supply more than 80 per cent of all roofing, have produced pastel colored shingles with high heat reflective value for some time but one of the greatest single difficulties they had was in developing a satisfactory white granule.

A roof takes a greater beating from the elements than any other part of the house—from wind, rain, hail, snow, sleet and sun. And no matter what color asphalt roofing granules are, they must be completely opaque, since asphalt is always "alive" and if rays from the sun should penetrate the granule, this would cause a chemical action of the asphalt which would loosen its hold on the granules.

For more than seven years the asphalt roofing industry realized the need for a white granule with these characteristics; then, about 18 months ago, the search ended when Minnesota Mining succeeded in developing one.

With almost any pastel color under the sun available and with the new white granules available as the base for all-white shingles and even more pastel colors asphalt roofs can now be applied with more consideration of prevailing temperatures. Even in the hottest climates, the new white opaque granules reflect heat and shield the asphalt shingles from the sun, thus assuring long life for the roof.

The use of pastel roof colors is not limited to reflecting summer heat. In colder climates, the beauty of pastel shades can be obtained in warm blends that absorb the sun's heat, thus giving extra warmth.

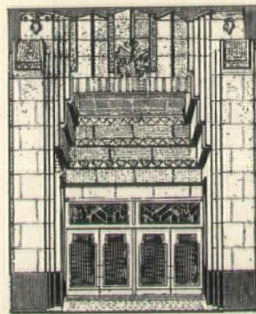
## WINDOW PROBLEMS TO BE STUDIED

A new research program dealing with windows is getting underway at the University of Illinois under a grant from the Lumber Dealers Research Council.

Modular co-ordination will play an important part in the work as one aim is to reduce "in-place" cost of fenestration. Other materials in addition to wood will be used in the studies. Studies will take into consideration the varying climates which are found in the United States.

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# STRAN-STEEL

## ROOF FRAMING SYSTEMS



100,000 sq. ft. of roof for Minnesota Mining & Manufacturing Company at Hastings, Minn. Roof framed with Stran-Steel joists.



200,000 sq. ft. of roofs for St. Paul Terminal Warehouse Company, at St. Paul, Minnesota. Roofs framed with Stran-Steel trusses.

Are Available For

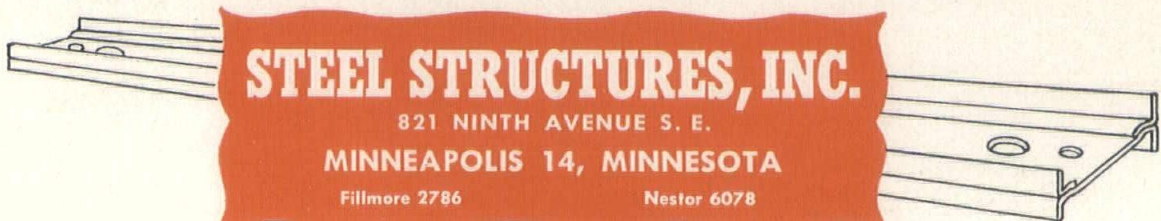
**IMMEDIATE  
DELIVERY!**

These two photographs illustrate two types of typical Stran-Steel Framed roofs. The shorter bays are spanned with the standard Stran-Steel joists, and the longer bays are spanned with trusses completely fabricated from other Stran-Steel Framing members. Stran-Steel Framing is easy to work with both in design and actual construction. It can be erected quickly and easily and permits complete flexibility in the use of collateral materials. Any exterior or interior collateral can be nailed to Stran-Steel Framing members. We will welcome an opportunity to discuss Stran-Steel Framing and its applications to your building plans.



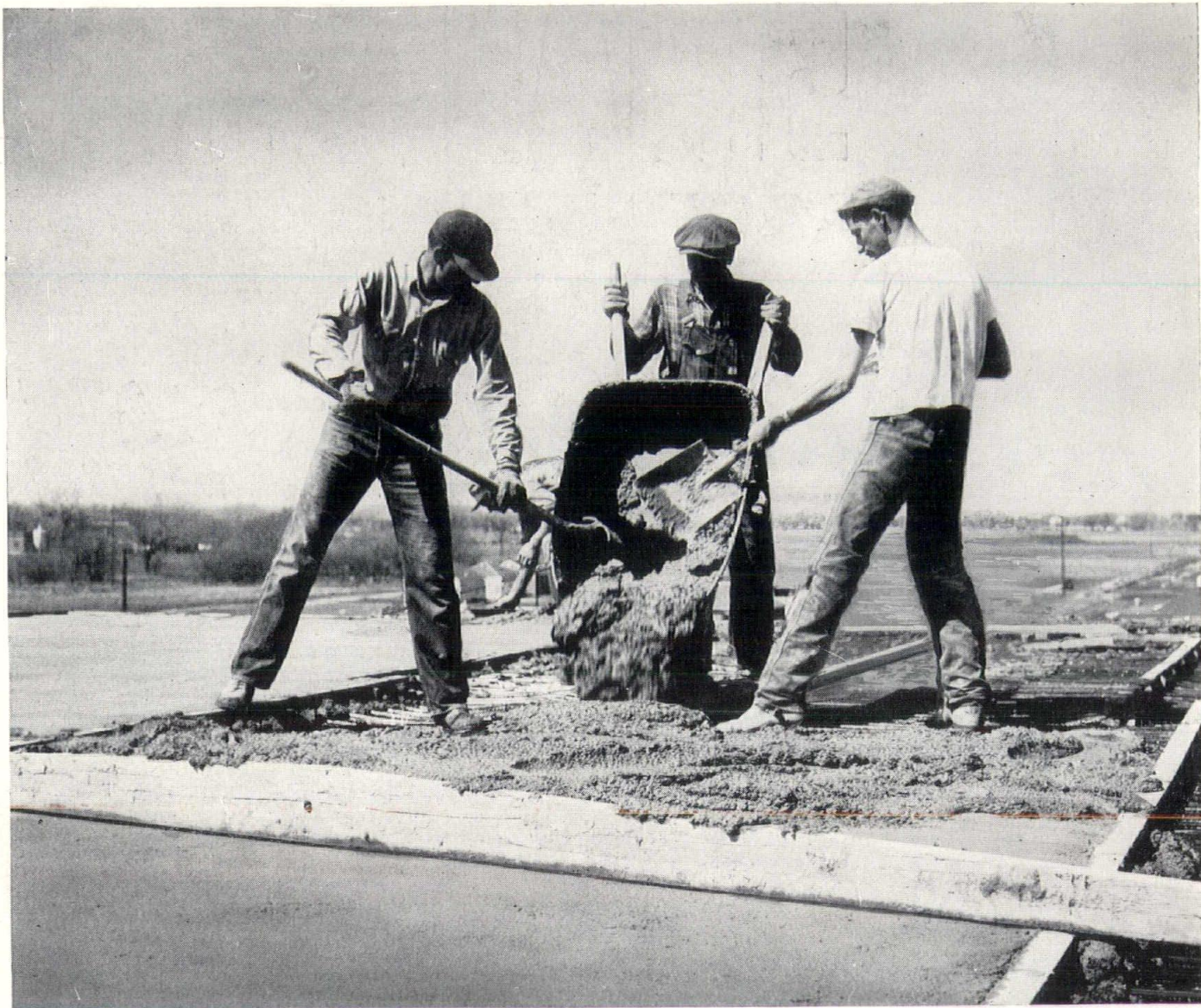
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North Platte Junior High School, North Platte, Nebraska, using 5200 bags of Zonolite Insulating Concrete Aggregate. Architect: Davis & Wilson, Lincoln, Nebraska. Contractor: United Builders, Inc., North Platte, Nebraska.

## **Twenty-Four Times As Much Insulation!**

On many prominent buildings all over the country, **ZONOLITE** Insulating Concrete has won wide favor as roof insulation. It's effective insulation! **ZONOLITE** Insulating Concrete actually provides 24 times as much insulation and is 1/7 the weight of ordinary concrete. It's fireproof! **ZONOLITE** Insulating Concrete is given a 4-hour fire rating by Underwriters Laboratory. In addition to being itself incombustible, this material effectively protects against the pas-

sage of heat and flame. It's permanent! **ZONOLITE** Insulating Concrete consists entirely of mineral or inorganic materials. Moisture has no effect on it and **ZONOLITE** Insulating Concrete provides no food or nesting material for vermin.

These are the main reasons why many Architects and Engineers specify **ZONOLITE** Insulating Concrete for all types of roof construction. Be sure you have latest information on Zonolite Insulating Concrete. Write today for data sheets.



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